=> fil reg FILE 'REGISTRY' ENTERED AT 09:55:02 ON 28 JUL 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 25 JUL 2003 HIGHEST RN 555152-78-8 DICTIONARY FILE UPDATES: 25 JUL 2003 HIGHEST RN 555152-78-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d 18 ide can tot

L8 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2003 ACS on STN

RN 282522-94-5 REGISTRY

CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C11 H13 N3 S . C4 H4 O4

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 282522-93-4 CMF C11 H13 N3 S

Absolute stereochemistry.

NHMe R NHMe

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

Jan Delaval
Reference Librarian
Biotechnology & Chemical Librari
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov

6 REFERENCES IN FILE CA (1947 TO DATE)

'6 REFERENCES IN FILE CAPLUS (1947 TO DATE)

REFERENCE 1: 137:174924

REFERENCE 2: 136:355238

REFERENCE 3: 136:205395

REFERENCE 4: 135:344486

REFERENCE 5: 135:331428

REFERENCE 6: 133:109946 ·

L8 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2003 ACS on STN

RN 282522-93-4 REGISTRY

CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN (5R)-5-(Methylamino)-5,6-dihydro-4H-imidazo[4,5,1-ij]quinoline-2(1H)-thione

FS STEREOSEARCH

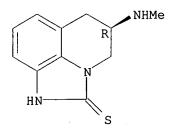
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CI COM

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry.



# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

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8 REFERENCES IN FILE CAPLUS (1947 TO DATE)

REFERENCE 1: 138:78475

REFERENCE 2: 138:78468

REFERENCE 3: 137:174924

REFERENCE 4: 136:355238

REFERENCE 5: 136:205395

REFERENCE 6: 135:344486

REFERENCE 7: 135:331428

REFERENCE 8: 133:109946

L8 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2003 ACS on STN

RN 179386-44-8 REGISTRY

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (R)-, (Z)-2-butenedioate (1:1)

OTHER NAMES:

CN PNU 95666

CN PNU-95666E

CN U 95666E

FS STEREOSEARCH

DR 194919-11-4

MF C11 H13 N3 O . C4 H4 O4

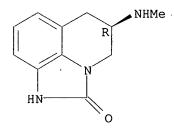
SR CAS Registry Services

LC STN Files: BIOSIS, CA, CAPLUS, CASREACT, PHAR, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 179386-43-7 CMF C11 H13 N3 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

20 REFERENCES IN FILE CA (1947 TO DATE)

20 REFERENCES IN FILE CAPLUS (1947 TO DATE)

REFERENCE 1: 139:63348

REFERENCE 2: 138:221518

REFERENCE 3: 138:198654

REFERENCE 4: 138:198652

REFERENCE 5: 136:355238

REFERENCE 6: 135:344486

REFERENCE 7: 135:331428

REFERENCE 8: 135:251990

REFERENCE 9: 135:251988

REFERENCE 10: 134:227362

L8 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2003 ACS on STN

RN **179386-43-7** REGISTRY

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (R)-OTHER NAMES:

CN Sumanirole

FS STEREOSEARCH

DR 194919-10-3

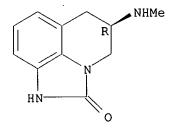
MF C11 H13 N3 O

CI COM

SR CAS Registry Services

LC STN Files: ADISINSIGHT, CA, CAPLUS, DRUGUPDATES, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry. Rotation (-).



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12 REFERENCES IN FILE CAPLUS (1947 TO DATE)

REFERENCE 1: 138:395249

REFERENCE 2: 138:78475

REFERENCE 3: 136:355238

REFERENCE 4: 136:205395

REFERENCE 5: 135:344486

REFERENCE 6: 135:331428

REFERENCE 7: 133:164054

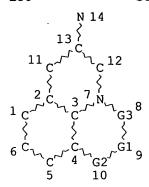
319 ANSWERS

133:109946 REFERENCE 8:

130:272022 REFERENCE 9:

REFERENCE 10: 126:186021

=> d sta que 140 L38 STR



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GRAPH ATTRIBUTES: RSPEC 1 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE 319 SEA FILE=REGISTRY SSS FUL L38

100.0% PROCESSED 53332 ITERATIONS

SEARCH TIME: 00.00.01

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L9

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FILE 'REGISTRY' ENTERED AT 09:14:01 ON 28 JUL 2003

L2 14 S E1-E14

3 S L2 AND NCNC2-NC5-C6/ES L3

38 S (179386-43-7 OR 282522-93-4)/CRN L4

1 S MALEIC ACID/CN L5

1 S 2-BUTENEDIOIC ACID/CN L6

2 S C4H4O4 AND L4 L7

4 S L3, L7 rs

> FILE 'HCAPLUS' ENTERED AT 09:23:46 ON 28 JUL 2003 26 S L8

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L10
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L11
             30 S L9, L10
              1 S L11 AND ADDICT?
L12
                E DRUG DEPENDENCE/CT
L13
           8194 S E3, E4
                E E3+ALL
L14
          11975 S E3+NT
                E E10+ALL
          40766 S E4, E3+NT
L15
                E SUBSTANCE ABUSE/CT
                E E3+ALL
           2052 S E2
L16
                E ADDICTION/CT
                E WITHDRAWAL/CT
                E TOBACCO/CT
                E TOBACCO SMOKE/CT
L17
          16079 S E3-E9
                E E6+ALL
L18
           8814 S E1
                E E2+ALL
L19
           7652 S E2, E1+NT
                E ALCOHOLISM/CT
           3450 S E3
L20
                E E3+ALL
L21
           1072 S E5
              2 S L11 AND L13-L21
L22
L23
              1 S L22 NOT RESTLESS LEG
     FILE 'REGISTRY' ENTERED AT 09:29:42 ON 28 JUL 2003
L24
              2 S (NICOTINE OR ETHANOL)/CN
     FILE 'HCAPLUS' ENTERED AT 09:29:49 ON 28 JUL 2003
L25
              1 S L24 AND L11
                E ANDERSON R/AU
L26
            324 S E3, E44-E46
                E ANDERSON RICH/AU
L27
             54 S E4
L28
             29 S E51-E53
                E MCBRINN S/AU
              2 S E5, E6
L29
                E MC BRINN S/AU
                E MCBRIN S/AU
                E ROBERTSON D/AU
L30
            135 S E3, E31
            148 S E51
L31
            166 S E76-E78
L32
                E MARSHALL R/AU
L33
            233 S E3, E8
                E MARCHAL ROB/AU
                E MARSHALL ROB/AU
            163 S E4, E8-E10
L34
              3 S L11 AND L26-L34
L35
              3 S L1, L12, L23, L35
L36
             20 S L11 AND (PD<=20000816 OR PRD<=20000816 OR AD<=20000816)
L37
     FILE 'REGISTRY' ENTERED AT 09:34:57 ON 28 JUL 2003
                STR
L38
              5 S L38
L39
            319 S L38 FUL
L40
                SAV L40 VKIM929/A TEMP
L41
                STR L38
              7 S L41 SAM SUB=L40
L42
                STR L41
L43
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L44
              2 S L43 SAM SUB=L40
L45
                STR L43
              5 S L45 SAM SUB=L40
L46
L47
             52 S L43 FUL SUB=L40
L48
             67 S L45 FUL SUB=L40
                SAV TEMP L47 VKIM929A/A
                SAV TEMP L48 VKIM929B/A
L49
            119 S L47, L48
L50
            315 S L40 NOT L8
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             63 S L50
L51
L52
              0 S L51 AND ADDICT?
              2 S L51 AND L13-L21
L53
              2 S L51 AND L24
L54
L55
              4 S L53, L54
              2 S L55 AND (COCAIN? OR CANNABI?)
L56
              0 S L51 AND L26-L34
L57
             17 S L51 AND (ABUS? OR WITHDRAW? OR ?TOLER? OR DEPEND? OR INTOX? O
L58
L59
              5 S L36, L56
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FILE 'REGISTRY' ENTERED AT 09:55:02 ON 28 JUL 2003

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=> fil hcaplus
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FILE 'HCAPLUS' ENTERED AT 09:55:37 ON 28 JUL 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 28 Jul 2003 VOL 139 ISS 5 FILE LAST UPDATED: 27 Jul 2003 (20030727/ED)

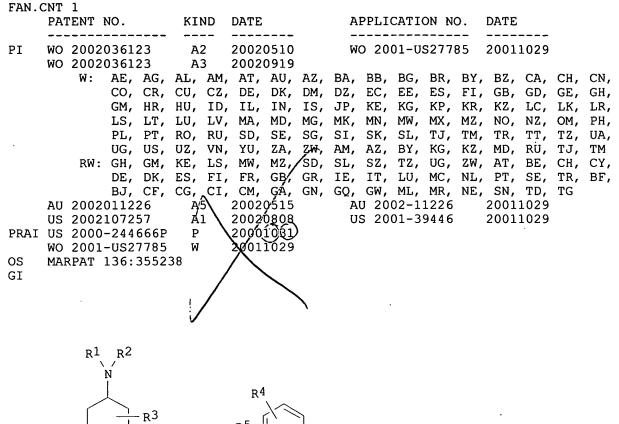
This file contains CAS Registry Numbers for easy and accurate substance identification.

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L59 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
     2002:353281 HCAPLUS
ΑN
     136:355238
DN
ΤT
     Preparation of imidazoquinolines and phenylazacycloalkanes as treatments
     for restless legs syndrome
     McBrinn, Sylvia; Anderson, Richard W.
IN
PΑ
     Pharmacia & Upjohn Company, USA
SO
     PCT Int. Appl., 30 pp.
     CODEN: PIXXD2
DТ
     Patent
     English
```

- LA
- ICM A61K031-445 IC ICS A61K031-48; A61P019-00
- 28-9 (Heterocyclic Compounds (More Than One Hetero Atom)) CC

Section cross-reference(s): 1, 63



— R6

II

Ι

AB Invention compds. I and II [R1-3 = H, alk(en/yn)yl, cycloalkyl, cycloalkyl or R1-2 are joined to form a cyclic amine; X = H, alkyl, halo, hydroxy, alkoxy, cyano, carboxamide, carboxy, carboalkoxyl; A = CH, CH2, CH-halo, CHCH3, C=0, C=S, C-SCH3, C=NH, C-NH2, C-NHCH3, C-NHCOOCH3, C-NHCN, SO2, N; B = CH2, CH, CH-halo, C=0, N, NH, N-CH3; n = 0-1; D = CH, CH2, CH-halo, C=0, O, N, NH, N-CH3; p = 0-3; R4-5 = H (provided only one is H at the same time), OH (provided R7 is other than hydrogen), CN, CH2CN, 2- or 4-CF3, CH2CF3, CH2CHF2, CH=CF2, (CH2)2CF3, ethenyl, 2-propenyl, OSO2CH3, OSO2CF3, SSO2CF3, COR7, COOR7, CON(R7)2, SOO-2CH3, SOO-2CF3, etc.; R6 = H, CF3, CH2CF3, alkyl, cycloalkyl, cycloalkylmethyl, alkenyl, alkynyl,

3,3,3-trifluoropropyl, 4,4,4-trifluorobutyl, etc.; R7 = H, CF3, CH2CF3, alkyl, cycloalkyl, cycloalkylmethyl, alkenyl, alkynyl, 3,3,3-trifluoropropyl, 4,4,4-trifluorobutyl,etc.] were prepd. For instance, (R)-Naproxen chloride (prepn. given) was coupled to 1-Benzyl-5-bromo-6-hydroxy-5,6-dihydro-4H-imidazo[4,5,1-ij]quinolin-2(1H)-one (prepn. given) and the resulting ester treated with MeNH2 in CH3CN to afford intermediate amino alc. III. III was converted to the aziridine via the benzenesulfonate and subsequently treated with Li/NH3 to effect debenzylation and aziridine ring opening. The resulting amide was converted to thioamide IV (pyridine, P4S10, 125.degree.C, 5 h). I and II are useful for treating restless leg syndrome (RLS).

ST treatment restless leg syndrome imidazoquinoline quinoline imidazole prepn piperidine

IT Human

(prepn. of imidazoquinolines and phenylazacycloalkanes as treatments for restless legs syndrome)

IT 146798-66-5P 156907-84-5P 173590-06-2P **179386-43-7P** 179386-44-8P 282522-93-4P 282522-94-5P 369595-93-7P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug; prepn. of imidazoquinolines and phenylazacycloalkanes as treatments for restless legs syndrome)

IT 105927-04-6P 227025-33-4P 269731-84-2P 282522-95-6P 282522-96-7P 282522-98-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of imidazoquinolines and phenylazacycloalkanes as treatments for restless legs syndrome)

IT 23979-41-1 83848-83-3, 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one
RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant; prepn. of imidazoquinolines and phenylazacycloalkanes as treatments for restless legs syndrome)

IT 179386-43-7P 179386-44-8P 282522-93-4P 282522-94-5P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug; prepn. of imidazoquinolines and phenylazacycloalkanes as treatments for restless legs syndrome)

RN 179386-43-7 HCAPLUS

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

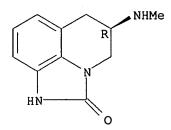
RN 179386-44-8 HCAPLUS

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 179386-43-7 CMF C11 H13 N3 O

Absolute stereochemistry. Rotation (-).



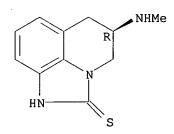
CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 282522-93-4 HCAPLUS CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 282522-94-5 HCAPLUS

CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 282522-93-4 CMF C11 H13 N3 S

Absolute stereochemistry.

CM 2

CRN 110-16-7 CMF C4 H4 O4

2002:142501

136:205395

Double bond geometry as shown.

ANSWER 2 OF 5 HCAPLUS

HCAPLUS

L59

ΑN

DN

```
Compounds for the treatment of addictive disorders
ΤI
IN
     Anderson, Richard W.; McBrinn, Sylvia S.;
     Robertson, David W.; Marshall, Robert C.
PA
     Pharmacia & Upjohn Company, USA
SO
     PCT Int. Appl., 39 pp.
     CODEN: PIXXD2
{\bf DT}
     Patent
LA
     English
IC
     ICM A61K031-00
CC
     63-6 (Pharmaceuticals)
     Section cross-reference(s): 1
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                      KIND DATE
                                            APPLICATION NO.
                                                              DATE
     PATENT NO.
                                            -----
                       A2
                             20020221
                                            WO 2001-US25603 20010813
     WO 2002013807
PI
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
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             RO, RU,
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             UZ, VN,
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             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
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     AU 2001083393
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                             20020425
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     US 2003<del>078273</del>
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                             20030214
     NO 2003000717
                        Ρ
                             20000816
PRAI US 2000-225714P
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                        Ρ
     US 2001-263610P
                        W
                             20010813<sup>-</sup>
     WO 2001-US25603
                             20010814
                        A3
     US 2001-929666
os
     MARPAT 136:205395
GI
```

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AB The treatment of addictive disorders, psychoactive substance use disorders, intoxication disorders, inhalation disorders, alc. addiction, tobacco addiction, and nicotine addiction using a heterocyclic amine, a phenylazacycloalkane, a cabergoline, or an arom. bicyclic amine active agent, or a pharmaceutically acceptable deriv. or salt of any said active agent is described. Example compds. are I and II.

ST addiction disorder treatment; heterocyclic amine

addiction disorder treatment; phenyl azacycloalkane addiction disorder treatment; cabergoline addiction disorder treatment

II

IT Drug dependence

#### Tobacco smoke

(compds. for the treatment of addictive disorders)

IT Amines, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (heterocyclic; compds. for the treatment of addictive disorders)

IT 54-11-5, Nicotine 64-17-5, Ethanol, biological studies

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (compds. for the treatment of **addictive** disorders)

IT 81409-90-7, Cabergoline 156907-84-5 170858-36-3 170858-41-0 173590-06-2 **179386-43-7 282522-93-4** 

**282522-94-5** 369595-93-7 400716-28-1 400716-30-5

400716-32-7 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compds. for the treatment of addictive disorders)

IT 179386-43-7 282522-93-4 282522-94-5

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compds. for the treatment of addictive disorders)

RN 179386-43-7 HCAPLUS

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 282522-93-4 HCAPLUS CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 282522-94-5 HCAPLUS CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 282522-93-4 CMF C11 H13 N3 S

Absolute stereochemistry.

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

```
ANSWER 3 OF 5 HCAPLUS
                             COPYRIGHT 2003 ACS on STN
L59
ΑN
     2001:798221 HCAPLUS
     135:331428
DN
     Preparation of heterocyclic amines for treating fibromyalgia and chronic
ΤI
     fatique syndrome.
IN
     McCall, Robert B.; Marshall, Robert C.; Robertson, David
     W.; Ashley, Thomas M.
PA
     Pharmacia + Upjohn Company, USA
SO
     PCT Int. Appl., 34 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
IC
     ICM C07D471-00
     28-9 (Heterocyclic Compounds (More Than One Hetero Atom))
CC
     Section cross-reference(s): 1, 27
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
                                                             DATE
     ______
                      ____
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     WO 2001081343
                       A2
                            20011101
                                            WO 2001-US10807
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   · WO 2001081343
                       A3
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             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
                     SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
             RU, SD,
                     ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
             VN, YU,
                     KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         RW: GH, GM,
                 ΦK,
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AB Use of title compds., e.g., (I; R1-R3 = H, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, phenylalkyl; R1R2N = cyclic amine; X = H, alkyl, halo, OH, alkoxy, cyano, carboxamide, CO2H, carboalkoxy; A = CH, CH2, CHY, CHMe, CO, CS, CSMe, CNH2, SO2, N, etc.; B = null, CH2, CH, CHY,

- CO, N, NH, NMe, O; D = CH, CH2, CHY, CO, O, N, NH, NMe; Y = halo) for prepn. of medicaments for the treatment of symptoms of fibromyalgia or chronic fatigue syndrome is claimed (no data). Thus, 4H-imidazo[4, 5, 1-ij]quinolin-2(1H)-one was converted in several steps to (5R)-5-methylamino-5, 6-dihydro-4H-imidazo[4, 5, 1-ij]quinoline-2(1H)-thione in several steps.
- ST heterocyclic amine prepn fibromyalgia chronic fatigue syndrome treatment; imidazoquinolinone prepn fibromyalgia chronic fatigue syndrome treatment; methylsulfonylphenylpropylpiperidine prepn fibromyalgia chronic fatigue syndrome treatment; cabergoline fibromyalgia chronic fatigue syndrome treatment
- IT Fatique, biological

(chronic fatigue syndrome, treatment; prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

IT Muscle, disease

(fibromyalgia, treatment; prepn. of heterocyclic amines for treating fibromyalgia and chronic fatique syndrome)

IT Amines, preparation

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(heterocyclic; prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

IT 282522-93-4P, (5R)-5-(Methylamino)-5,6-dihydro-4H-imidazo[4,5,1-ij]quinoline-2(1H)-thione 282522-94-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

IT 81409-90-7, Cabergoline 156907-84-5 173590-06-2 **179386-43-7 179386-44-8** 369595-93-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

IT 282522-97-8P

RL: BYP (Byproduct); PREP (Preparation)

(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

IT 269731-84-2P, (5R, 6R)-1-Benzyl-5-hydroxy-6-(methylamino)-5,6-dihydro-4H-imidazo[4,5,1-ij]quinoline-2(1H)-one

RL: PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

IT 74-89-5, Methylamine, reactions 83848-83-3, 4H-Imidazo[4,5,1ij]quinoline-2(1H)-one

RL: RCT (Reactant); RACT (Reactant or reagent)

IT 227025-33-4P, 1-Benzyl-4H-imidazo[4,5,1-ij]quinoline-2(1H)-one
282522-96-7P 369595-91-5P, (5R,6R)-1-Benzyl-5-bromo-6-hydroxy-5,6dihydro-4H-imidazo[4,5,1-ij]quinoline-2(1H)-one 369595-92-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

IT 282522-93-4P, (5R)-5-(Methylamino)-5,6-dihydro-4H-imidazo[4,5,1ij]quinoline-2(1H)-thione 282522-94-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)
RN 282522-93-4 HCAPLUS

CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

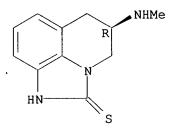
RN 282522-94-5 HCAPLUS

CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 282522-93-4 CMF C11 H13 N3 S

Absolute stereochemistry.



CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

# IT 179386-43-7 179386-44-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

RN 179386-43-7 HCAPLUS

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

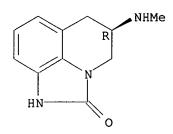
RN 179386-44-8 HCAPLUS

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 179386-43-7 CMF C11 H13 N3 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

L59 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1999:623743 HCAPLUS

DN 132:8911

TI Analysis of D2 and D3 Receptor-Selective Ligands in Rats Trained to Discriminate Cocaine from Saline

AU Garner, K. J.; Baker, L. E.

CS Department of Psychology, Western Michigan University, Kalamazoo, MI, USA

SO Pharmacology, Biochemistry and Behavior (1999), 64(2), 373-378 CODEN: PBBHAU; ISSN: 0091-3057

PB Elsevier Science Inc.

DT Journal

LA English

CC 1-11 (Pharmacology)

AB This study examd. the role of dopamine D3 receptors in the stimulus

generalization produced by 7-OH-DPAT and PD 128907 in rats trained to discriminate cocaine from saline. Twelve male Sprague-Dawley rats were trained to discriminate cocaine (10 mg/kg) from saline in a two-choice operant procedure using a FR20 schedule of water reinforcement. Stimulus generalization tests were administered with the D3-preferring agonists (.+-.)-7-OH-DPAT (0.01-0.3 mg/kg), (+)-7-OH-DPAT (0.01-0.3 mg/kg), and PD 128907 (0.01-0.3 mg/kg), and the selective D2 agonist PNU-39156 (0.01-0.3 mg/kg). Complete generalization to cocaine was obsd. with (.+-.)-7-OH-DPAT at doses that markedly suppressed response rate. Only partial stimulus generalization was obsd. with (+)-7-OH-DPAT and PD 128907 when these compds. were administered i.p., although s.c. injections of these compds. produced complete substitution. Response rate was also significantly reduced by these The selective D2 agonist, PNU-91356 also fully substituted for the cocaine cue and suppressed response rate in a dose-dependent manner. To ascertain the importance of D3 receptor actions in the stimulus generalization produced by (.+-.)-7-OH-DPAT (0.1 mg/kg) and PD-128907 (0.3 mg/kg), the fairly selective D3 antagonist, PNU-99194A (2.5-20 mg/kg) was also tested in combination with these compds. Although PNU-99194A partially attenuated the stimulus generalization produced by (.+-.)-7-OH-DPAT, it failed to block PD-128907 substitution for cocaine. These results indicate at least some involvement of D3 receptors in the stimulus effects of (.+-.)-7-OH-DPAT, although further investigations are clearly warranted. The present results also suggest that the cue properties of cocaine may be dissocd. from the locomotor activating effects of this drug, because D3/D2 receptor agonists suppress locomotor activity but produce stimulus generalization to cocaine.

ST D2 D3 receptor ligand cocaine discrimination

IT Dopamine agonists

Dopamine antagonists

#### Drugs of abuse

 $(D\bar{D})$  and D3 receptor-selective ligands in rats trained to discriminate cocaine from saline)

IT Dopamine receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (D2; D2 and D3 receptor-selective ligands in rats trained to discriminate cocaine from saline)

IT Dopamine receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (D3; D2 and D3 receptor-selective ligands in rats trained to discriminate cocaine from saline)

IT Behavior

(drug-discriminating; D2 and D3 receptor-selective ligands in rats trained to discriminate **cocaine** from saline)

IT Behavior

(locomotor; D2 and D3 receptor-selective ligands in rats trained to discriminate cocaine from saline)

IT 50-36-2, Cocaine

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (D2 and D3 receptor-selective ligands in rats trained to discriminate cocaine from saline)

IT 74938-11-7, (.+-.)-7-OH-DPAT 82730-72-1, (+)-7-OH-DPAT 83598-46-3, PNU-99194A 123594-64-9, PD 128907 162616-64-0, PNU 91356 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(D2 and D3 receptor-selective ligands in rats trained to discriminate cocaine from saline)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD

- (1) Acri, J; Eur J Pharmacol 1995, V281, PR7 HCAPLUS
- (2) Baker, L; Behav Pharmacol 1993, V4, P69 HCAPLUS
- (3) Baker, L; Behav Pharmacol 1997, V8, P243 HCAPLUS

- (4) Baker, L; Eur J Pharmacol 1998, V358, P101 HCAPLUS
- (5) Barrett, R; Psychopharmacology (Berlin) 1989, V99, P13 HCAPLUS
- (6) Bevens, R; Pharmacol Biochem Behav 1997, V58, P485
- (7) Burris, K; Neuropsychopharmacology 1995, V12, P335 HCAPLUS
- (8) Caine, S; Behav Pharmacol 1995, V6, P333 HCAPLUS
- (9) Callahan, P; J Pharmacol Exp Ther 1993, V266, P585 HCAPLUS
- (10) Callahan, P; Psychopharmacology (Berlin) 1992, V107, P73 HCAPLUS
- (11) Clark, D; Eur J Pharmacol 1995, V275, P67 HCAPLUS
- (12) Colpaert, F; Neuropharmacology 1978, V17, P937 HCAPLUS
- (13) Colpaert, F; Psychopharmacology (Berlin) 1978, V58, P247 HCAPLUS
- (14) Daly, S; Neuropharmacology 1993, V32, P509 HCAPLUS
- (15) Demattos, S; Soc Neurosci Abstr 1993, V19, P77
- (16) Extance, K; Psychopharmacology (Berlin) 1981, V91, P67
- (17) Kleven, M; J Pharmacol Exp Ther 1990, V254, P312 HCAPLUS
- (18) Kling-Petersen, T; Behav Pharmacol 1995, V6, P107 HCAPLUS
- (19) Lamas, X; Psychopharmacology (Berlin) 1996, V124, P306 HCAPLUS
- (20) Levesque, D; Proc Natl Acad Sci USA 1992, V89, P8155 HCAPLUS
- (21) McKenna, M; Neuropharmacology 1980, V19, P297 HCAPLUS
- (22) Parsons, L; J Neurochem 1996, V3, P1078
- (23) Piercey, M; Clin Neuropharmacol 1995, V18, PS34
- (24) Pugsley, T; J Pharmacol Exp Ther 1995, V275, P1355 HCAPLUS
- (25) Richardson, N; Brain Res 1993, V619, P15 HCAPLUS
- (26) Roberts, D; Clin Neuropharmacol 1995, V18, PS84
- (27) Smith, A; Psychopharmacology (Berlin) 1995, V120, P93 HCAPLUS
- (28) Spealman, R; J Pharmacol Exp Ther 1991, V258, P945 HCAPLUS
- (29) Spealman, R; J Pharmacol Exp Ther 1996, V278, P1128 HCAPLUS
- (30) Varty, G; Eur J Pharmacol 1997, V339, P101 HCAPLUS
- (31) Waters, N; J Neural Transm 1993, V94, P11 HCAPLUS
- (32) Witkin, J; J Pharmacol Exp Ther 1991, V257, P706 HCAPLUS
- IT 162616-64-0, PNU 91356

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(D2 and D3 receptor-selective ligands in rats trained to discriminate cocaine from saline)

- RN 162616-64-0 HCAPLUS
- CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(propylamino)-, monohydrochloride, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

- L59 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
- AN 1995:559561 HCAPLUS
- DN 123:47383
- TI Common cannabimimetic pharmacophoric requirements between aminoalkyl indoles and classical cannabinoids
- AU Xie, Xiang-Qun; Eissenstat, Michael; Makriyannis, Alexandros
- CS Dep. Pharmaceutical Sciences, School Pharmacy, Storrs, CT, 06269, USA

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SO Life Sciences (1995), 56(23/24), 1963-70 CODEN: LIFSAK; ISSN: 0024-3205
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- PB Elsevier
- DT Journal
- LA English
- CC 1-3 (Pharmacology)
- AB Aminoalkylindoles (AAIs) are structurally dissimilar from the classical cannabinoids (CCs); however, both AAIs and CCs appear to bind at the same site on the cannabinoid receptor. To obtain better insights on the structural correlation between AAIs and CCs, the authors have studied the conformational properties of the potent cannabimimetic AAI WIN 5521-2 and its inactive analogs using high resoln. 2D NMR spectroscopy in combination with computer-assisted mol. modeling. The pharmacophoric similarities between the AAIs and the CCs were then investigated using superimposition techniques. The abs. stereochemistries of the biol. active enantiomer (-)-9.beta.hydroxyhexahydrocannabinol [(-)-(HHC)] were used as superimposition points and considered as internal controls to test the mol. principles guiding this expt. The results show that the model is congruent with a superimposition in which the naphthoyl, morpholino and 3-keto groups in the AAI, resp. correspond to the side chain, cyclohexanol OH and phenolic OH of HHC. A good fit is obtained when the two biol. active antipodes are superimposed. Conversely, the fit is poor if the inactive AAI enantiomer is superimposed on the active HHC enantiomer. It can also be seen that in such an orientation a certain deviation of the C-ring from the plane of the phenol ring of the tricyclic HHC component and of the morpholinyl portion from the plane of the indole ring of WIN 55212-2 is essential for cannabimimetic activity. The inactive enantiomer WIN 55212-3 has its resp. components aligned in the opposite quadrant. By comparing the stereoelectronic features of representative AAIs and CCs, the authors have developed a model which may help to uncover the pharmacophoric requirements of the AAIs and serve as a basis for future SAR and drug design.
- ST cannabimimetic activity aminoalkylindole cannabinoid pharmacophore
- IT Conformation and Conformers

Pharmacophores

(common cannabimimetic pharmacophoric requirements between aminoalkyl indoles and classical cannabinoids for cannabimimetic activity)

IT Cannabinoids

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(common cannabimimetic pharmacophoric requirements between aminoalkyl indoles and classical cannabinoids for cannabimimetic activity)

IT Cannabinoid receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(common cannabimimetic pharmacophoric requirements between aminoalkyl indoles and classical cannabinoids for cannabimimetic activity)

IT Molecular structure-biological activity relationship
(cannabinoid, common cannabimimetic pharmacophoric
requirements between aminoalkyl indoles and classical
cannabinoids for cannabimimetic activity)

IT Receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(cannabinoid, common cannabimimetic pharmacophoric requirements between aminoalkyl indoles and classical cannabinoids for cannabimimetic activity)

IT 59685-28-8 92623-83-1, Pravadoline 131543-22-1, WIN 55212-2 131543-24-3, WIN 55212-3 137794-89-9 164324-23-6 164324-24-7

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(common cannabimimetic pharmacophoric requirements between aminoalkyl indoles and classical cannabinoids for cannabimimetic activity)

IT 137794-89-9 164324-23-6 164324-24-7

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(common cannabimimetic pharmacophoric requirements between aminoalkyl indoles and classical cannabinoids for cannabimimetic activity)

RN 137794-89-9 HCAPLUS

CN Methanone, [5,6-dihydro-2-methyl-5-(4-morpholinyl)-4H-pyrrolo[3,2,1-ij]quinolin-1-yl](4-methoxyphenyl)- (9CI) (CA INDEX NAME)

RN 164324-23-6 HCAPLUS

CN Methanone, [5,6-dihydro-2-methyl-5-(4-morpholinyl)-4H-pyrrolo[3,2,1-ij]quinolin-1-yl](4-methoxyphenyl)-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 164324-24-7 HCAPLUS

CN Methanone, [5,6-dihydro-2-methyl-5-(4-morpholinyl)-4H-pyrrolo[3,2,1-ij]quinolin-1-yl](4-methoxyphenyl)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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STRUCTURE FILE UPDATES: 25 JUL 2003 HIGHEST RN 555152-78-8 DICTIONARY FILE UPDATES: 25 JUL 2003 HIGHEST RN 555152-78-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

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## => d 170 ide can tot

L70 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2003 ACS on STN RN **81409-90-7** REGISTRY Ergoline-8-carboxamide, N-[3-(dimethylamino)propyl]-N-CN [(ethylamino)carbonyl]-6-(2-propenyl)-, (8.beta.)- (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES: Indolo[4,3-fg]quinoline, ergoline-8-carboxamide deriv. OTHER NAMES: CN Cabaser CN Cabergoline CN Dostinex CN Galastop CN Sogilen FS STEREOSEARCH MF C26 H37 N5 O2 CI COM ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, LC

STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*,
BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB,
CIN, CSCHEM, DDFU, DIOGENES, DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES,
EMBASE, IPA, MEDLINE, MRCK\*, PHAR, PHARMASEARCH, PROMT, RTECS\*,

SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL, VETU (\*File contains numerically searchable property data)
Other Sources: WHO

## Absolute stereochemistry.

201 REFERENCES IN FILE CA (1947 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
201 REFERENCES IN FILE CAPLUS (1947 TO DATE)

REFERENCE 1: 139:34107

REFERENCE 2: 139:31169

REFERENCE 3: 139:30378

REFERENCE 4: 139:29930

REFERENCE 5: 139:17440

REFERENCE 6: 139:828

REFERENCE 7: 139:517

REFERENCE 8: 138:348541

REFERENCE 9: 138:343889

REFERENCE 10: 138:343854

L70 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2003 ACS on STN

RN 64-17-5 REGISTRY

CN Ethanol (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Ethyl alcohol (6CI, 7CI, 8CI)

OTHER NAMES:

CN 100C.NPA

CN AHD 2000

CN Alcare Hand Degermer

CN Alcohol

```
CN
     Alcohol anhydrous
CN
     Algrain
CN
     Anhydrol
CN
     Anhydrol PM 4085
CN
     Desinfektol EL
CN
     Duplicating Fluid 100C.NPA
CN
     Esumiru WK 88
CN
     Ethicap
CN
     Ethyl hydrate
CN
     Ethyl hydroxide
CN
     Hinetoless
CN
     IMS 99
     Jaysol
CN
     Jaysol S
CN
CN
     Lux
CN
     Methylcarbinol
     Molasses alcohol
CN
CN
     Potato alcohol
CN
     SDA 3A
CN
     SDA 40-2
CN
     Sekundasprit
CN
     SY Fresh M
CN
     Synasol
CN
     Tecsol
CN
     Tecsol C
     3D CONCORD
FS
     8000-16-6, 8024-45-1, 121182-78-3
DR
MF
     C2 H6 O
CI
     COM
                  ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS,
LC
     STN Files:
       BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB,
       CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB,
       DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2,
       ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB,
       IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*,
       PHARMASEARCH, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT,
       USAN, USPAT2, USPATFULL, VETU, VTB
         (*File contains numerically searchable property data)
                     DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
```

#### $H_3C-CH_2-OH$

REFERENCE

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

152448 REFERENCES IN FILE CA (1947 TO DATE) 1131 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 152593 REFERENCES IN FILE CAPLUS (1947 TO DATE) 11 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

1: 139:77924 REFERENCE REFERENCE 2: 139:77838 139:77078 REFERENCE 3: REFERENCE 4: 139:77012 139:76762

5:

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139:76746
REFERENCE
            6:
REFERENCE
            7:
                139:76600
REFERENCE
                139:76182
REFERENCE
                139:76167
REFERENCE 10: 139:75681
L70 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2003 ACS on STN
RN
     54-11-5 REGISTRY
     Pyridine, 3-[(2S)-1-methyl-2-pyrrolidinyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Nicotine (8CI)
CN
     Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-
CN
OTHER NAMES:
CN
     (-)-.beta.-Pyridyl-.alpha.-N-methylpyrrolidine
     (-)-3-(1-Methyl-2-pyrrolidyl)pyridine
CN
     (-)-Nicotine
CN
CN
     (S) - (-) - Nicotine
     (S)-3-(1-Methyl-2-pyrrolidinyl)pyridine
CN
CN
     (S)-Nicotine
     Flux Maag
CN
     Habitrol
CN
     1-Nicotine
CN
CN
     L-Nicotine
CN
     Nicabate
CN
     Nicoderm
CN
     Nicolan
     Niconil
CN
     Nicopatch
CN
CN
     Nicorette
CN
     Nicotell TTS
CN
     Nicotin
     Nicotinell
CN
CN
     Tabazur
CN
     XL All Insecticide
FS
     STEREOSEARCH
     13890-81-8, 13890-82-9, 6912-85-2, 551-13-3, 16760-37-5
DR
MF
     C10 H14 N2
CI
     COM
                  ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS,
LC
     STN Files:
       BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB,
       CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB,
       DDFU, DETHERM*, DIOGENES, DRUGNL, DRUGU, DRUGUPDATES, EMBASE, GMELIN*,
       HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS,
       NAPRALERT, NIOSHTIC, PDLCOM*, PHAR, PHARMASEARCH, PIRA, PROMT, RTECS*,
       SPECINFO, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU
         (*File contains numerically searchable property data)
                      DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
```

Absolute stereochemistry. Rotation (-).

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

13931 REFERENCES IN FILE CA (1947 TO DATE)
240 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
13951 REFERENCES IN FILE CAPLUS (1947 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 139:74088

REFERENCE 2: 139:74029

REFERENCE 3: 139:73918

REFERENCE 4: 139:68727

REFERENCE 5: 139:67869

REFERENCE 6: 139:66322

REFERENCE 7: 139:66190

REFERENCE 8: 139:64745

REFERENCE 9: 139:64744

REFERENCE 10: 139:64743

#### => d his 160-

(FILE 'REGISTRY' ENTERED AT 09:55:02 ON 28 JUL 2003)

FILE 'HCAPLUS' ENTERED AT 09:55:37 ON 28 JUL 2003

FILE 'REGISTRY' ENTERED AT 09:56:16 ON 28 JUL 2003

L60 1 S L2 AND CABER? L61 2 S 81409-90-7/CRN

FILE 'HCAPLUS' ENTERED AT 09:57:56 ON 28 JUL 2003

L62 207 S L60 OR L61

L63 245 S CABERGOLIN? OR CABASER# OR DOSTINEX OR GALASTOP# OR SOGILEN#

L64 257 S L62, L63

L65 3 S L64 AND ADDICT?

L66 7 S L64 AND L13-L21

L67 6 S L64 AND L24

L68 . 12 S L65-L67

SEL DN AN 4 6 8

L69 3 S E1-E9 AND L68 SEL HIT RN

FILE 'REGISTRY' ENTERED AT 10:01:58 ON 28 JUL 2003 L70 3 S E10-E12

FILE 'REGISTRY' ENTERED AT 10:02:03 ON 28 JUL 2003

## => fil hcaplus

FILE 'HCAPLUS' ENTERED AT 10:02:21 ON 28 JUL 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 28 Jul 2003 VOL 139 ISS 5 FILE LAST UPDATED: 27 Jul 2003 (20030727/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

#### => d 169 all hitstr tot

```
ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN
L69
     2002:142501 HCAPLUS
AN
     136:205395----
DN
    Compounds for the treatment of addictive disorders
TI
     Anderson, Richard W.; McBrinn, Sylvia S.; Robertson, David W.; Marshall,
IN
     Robert C.
PA
     Pharmacia & Upjohn Company, USA
SO
     PCT Int. Appl., 39 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
     ICM A61K031-00
IC
     63-6 (Pharmaceuticals)
     Section cross-reference(s): 1
FAN.CNT 1
                                           APPLICATION NO.
                                                           DATE
                      KIND DATE
     PATENT NO.
                                           _____
                      ____
                            _____
                                           WO 2001-US25603 20010813
     WO 2002013807
                      A2
                            20020221
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                                            20010813
    AU 2001083393
                       Α5
                            20020225
                                           AU 2001-83393
                                                            20010814
     US 2002049206
                       A1
                            20020425
                                           US 2001-929666
     US 2003078273
                       Α1
                            20030424
                                           US 2002-295331
                                                            20021115
                                           NO 2003-717
                                                            20030214
    NO 2003000717
                       Α
                            20030214
PRAI US 2000-225714P
                       Ρ
                            20000816
     US 2001-263610P
                       ₽
                            20010123
     WO 2001-US25603
                       W
                            20010813
     US 2001-929666
                       А3
                            20010814
     MARPAT 136:205395
os
GI
```

AB The treatment of addictive disorders, psychoactive substance use disorders, intoxication disorders, inhalation disorders, alc. addiction, tobacco addiction, and nicotine addiction using a heterocyclic amine, a phenylazacycloalkane, a cabergoline, or an arom. bicyclic amine active agent, or a pharmaceutically acceptable deriv. or salt of any said active agent is described. Example compds. are I and II.

ST addiction disorder treatment; heterocyclic amine

ST addiction disorder treatment; heterocyclic amine addiction disorder treatment; phenyl azacycloalkane addiction disorder treatment; cabergoline addiction disorder treatment

IT Drug dependence Tobacco smoke

(compds. for the treatment of addictive disorders)

IT Amines, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (heterocyclic; compds. for the treatment of addictive disorders)

IT 54-11-5, Nicotine 64-17-5, Ethanol, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(compds. for the treatment of addictive disorders)

IT 81409-90-7, Cabergoline 156907-84-5 170858-36-3 170858-41-0 173590-06-2 179386-43-7 282522-93-4 282522-94-5 369595-93-7 400716-28-1 400716-30-5 400716-32-7 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compds. for the treatment of addictive disorders)

RN 54-11-5 HCAPLUS

CN Pyridine, 3-[(2S)-1-methyl-2-pyrrolidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 64-17-5 HCAPLUS

CN Ethanol (9CI) (CA INDEX NAME)

**H3C-СH2-ОН** 

IT 81409-90-7, Cabergoline

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compds. for the treatment of addictive disorders)

RN 81409-90-7 HCAPLUS

CN Ergoline-8-carboxamide, N-[3-(dimethylamino)propyl]-N[(ethylamino)carbonyl]-6-(2-propenyl)-, (8.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

```
L69 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN
```

AN 2001:434864 HCAPLUS

DN 135:29157

TI Tetrahydrobenzothiazole derivatives for the treatment of addiction disorders

IN Berger, Stephen Paul

PA University of Cincinnati, USA

SO PCT Int. Appl., 41 pp. CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K031-428

ICS A61K031-437; A61K031-4045

CC 1-11 (Pharmacology)

Section cross-reference(s): 4

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
PI WO 2001041763 A1 20010614 WO 2000-US33444 20001208

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 1999-170104P
                            19991210
     MARPAT 135:29157
AΒ
     Methods for the treatment of addiction disorders involve
     administering a tetrahydrobenzothiazole deriv., e.g. pramipexole.
     invention comprises methods for the treatment or prevention of
     addiction disorders using tetrahydrobenzothiazole derivs.,
     pharmaceutical compns! contg. one or more of tetrahydrobenzothiazole
     derivs., or pharmaceutical compns. contg. one or more of
     tetrahydrobenzothiazole derivs. in addn. to a safe and effective amt. of
     one or more addnl. agen as to treat related symptoms and conditions. The
     invention relates to new uses of tetrahydrobenzothiazoles, the enantiomers
     and acid addn. salts thereof, particularly the pharmaceutically acceptable
     acid addn. salts thereof with inorg. or org. acids. The invention also
     relates to the use of ropinixole and carbergoline for the treatment of
     addiction disorders.
     tetrahydrobenzothiazole deriv addiction disorder treatment;
     pramipexole addiction disorder treatment; ropinirole
     carbergoline addiction disorder treatment
IT
     Drugs of abuse
        (abuse of; tetrahydrobenzothiazole derivs. for
        addiction disorder tréatment)
IT
     Adrenal cortex
        (adrenocortical suppressants; tetrahydrobenzothiazole derivs. for
        addiction disorder treatment, and use with other agents)
ΙT
     Thyroid hormones
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); /THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (and thyroid inhibitors; tetrahydrobenzothiazole derivs. for
        addiction disorder treatment, and use with other agents)
ΙT
     Androgens
     RL: BAC (Biological/activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
        (antiandrogens; /tetrahydrobenzothiazole derivs. for addiction
        disorder treatment, and use with other agents)
IT
     Nausea
        (antinauseants: tetrahydrobenzothiazole derivs. for addiction
        disorder treatment, and use with other agents)
IT
     Anti-ischemic agents
        (cerebral ischemia; tetrahydrobenzothiazole derivs. for
        addiction disorder treatment, and use with other agents)
ΙT
     Behavior
        (disorder, addictions; tetrahydrobenzothiazole derivs. for
        addiction disorder treatment)
ΙT
     Appetite
        (disorder; tetrahydrobenzothiazole derivs. for addiction
        disorder treatment)
     Appetite
IT
        (hyperphagia; tetrahydrobenzothiazole derivs. for addiction
        disorder treatment)
IT
     Emotion
        (mood regulato/rs; tetrahydrobenzothiazole derivs. for addiction
        disorder treatment, and use with other agents)
```

```
ΙT
     Cytoprotective agents
        (neuroprotectants; tetrahydrobenzothiazole derivs. for
        addiction disorder treatment, and use with other agents)
ΙT
     Agranulocytosis
        (neutropenia, antineutropenics; tetrahydrobenzothiazole derivs. for
        addiction disorder treatment, and use with other agents)
IT
     Mental disorder
        (obsession, anti-obsessional agents; tetrahydrobenzothiazole derivs.
        for addiction disorder treatment, and use with other agents)
IT
     Mental activity
        (performance, enhancers; tetrahydrobenzothiazole derivs. for
        addiction disorder treatment, and use with other agents)
IT
     Mental disorder
        (personality disorder; tetrahydrobenzothiazole derivs. for
        addiction disorder treatment)
IT
     Nervous system agents
        (relaxants; tetrahydrobenzothiazole derivs. for addiction
        disorder treatment, and use with other agents)
IT
     Biological transport
        (serotonin reuptake inhibitors; tetrahydrobenzothiazole derivs. for
        addiction disorder treatment, and use with other agents)
ΙT
     5-HT antagonists
     Adrenoceptor agonists
       Alcoholism
     Analgesics
     Anti-inflammatory agents
     Antidepressants
     Antidiabetic agents
     Antihypertensives
     Antiobesity agents
     Antiparkinsonian agents
     Antipsychotics
     Anxiolytics
     Appetite depressants
     Cardiotonics
     Cardiovascular agents
     Choleretics
     Cholinergic agonists
     Cognition enhancers
      Drug dependence
     Hypnotics and Sedatives
     Nervous system stimulants
     Opioid antagonists
     Psychostimulants
     Psychotropics
     Sexual behavior
     Tranquilizers
     Vasoconstrictors
     Vasodilators
        (tetrahydrobenzothiazole derivs. for addiction disorder
        treatment, and use with other agents)
IT
     Opioids
     RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or
     effector, except adverse); BSU (Biological study, unclassified); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (tetrahydrobenzothiazole derivs. for addiction disorder
        treatment, and use with other agents)
     Amino acids, biological studies
     Corticosteroids, biological studies
     Hormones, animal, biological studies
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
```

(tetrahydrobenzothiazole derivs. for addiction disorder treatment, and use with other agents) ΙT Adrenoceptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (.alpha.-, .alpha.-adrenergic agents; tetrahydrobenzothiazole derivs. for addiction disorder treatment, and use with other agents) IT 64-17-5, Ethanol, biological studies RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (alc. abuse; tetrahydrobenzothiazole derivs. for addiction disorder treatment, and use with other agents) ΙT 52-39-1, Aldosterone RL: BSU (Biological study, unclassified); BIOL (Biological study) (antagonists; tetrahydrobenzothiazole derivs. for addiction disorder treatment, and use with other agents) ΙT 9001-08-5, Cholinesterase RL: BSU (Biological study, unclassified); BIOL (Biological study) (deactivators; tetrahydrobenzothiazole derivs. for addiction disorder treatment, and use with other agents) 50-67-9, Serotonin, biological studies 9001-03-0, Carbonic anhydrase IT RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors; tetrahydrobenzothiazole derivs. for addiction disorder treatment, and use with other agents) 50-99-7, D-Glucose, biological studies IT RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (regulators; tetrahydrobenzothiazole derivs. for addiction disorder treatment, and use with other agents) ΙT 2933-29-1D, derivs. RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (tetrahydrobenzothiazole derivs. for addiction disorder treatment) 50-36-2, Cocaine IT RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (tetrahydrobenzothiazole derivs. for addiction disorder treatment, and use with other agents) IT **54-11-5**, Nicotine RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (tetrahydrobenzothiazole derivs. for addiction disorder treatment, and use with other agents) 99-66-1, Valproic acid 7439-93-2, Lithium, biological studies IT 12794-10-4D, Benzodiazepine, derivs. 16590-41-3, Naltrexone 34911-55-2, Bupropion 76584-70-8, Divalproex sodium Acamprosate 81409-90-7, Cabergoline 81409-90-7D, Cabergoline, derivs. 91374-21-9, 91374-21-9D, Ropinirole, derivs. 96829-58-2, Orlistat Ropinirole 106650-56-0, Sibutramine RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (tetrahydrobenzothiazole derivs. for addiction disorder treatment, and use with other agents) THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT

(1) Caine; Neuro Report, STN Accession No 1997:168007 1997, V8/910, P2373

64-17-5, Ethanol, biological studies

RE

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(alc. abuse; tetrahydrobenzothiazole derivs. for addiction disorder treatment, and use with other agents)

RN 64-17-5 HCAPLUS

CN Ethanol (9CI) (CA INDEX NAME)

H3C-CH2-OH

## IT **54-11-5**, Nicotine

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(tetrahydrobenzothiazole derivs. for addiction disorder

treatment, and use with other agents)

RN 54-11-5 HCAPLUS

CN Pyridine, 3-[(2S)-1-methyl-2-pyrrolidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

#### IT 81409-90-7, Cabergoline 81409-90-7D,

Cabergoline, derivs.

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(tetrahydrobenzothiazole derivs. for addiction disorder

treatment, and use with other agents)

RN 81409-90-7 HCAPLUS

CN Ergoline-8-carboxamide, N-[3-(dimethylamino)propyl]-N-

[(ethylamino)carbonyl]-6-(2-propenyl)-, (8.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CN Ergoline-8-carboxamide, N-[3-(dimethylamino)propyl]-N[(ethylamino)carbonyl]-6-(2-propenyl)-, (8.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

```
ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN
L69
ΑN
     2000:666601 HCAPLUS
DN
     133:256811
ΤI
     Pharmaceutical compositions containing dopamine agonists in combination
     with nitric oxide donors for treating and/or preventing sexual
     dysfunctions
IN
     Garvey, David S.
PΑ
     Nitromed, Inc., USA
SO
     PCT Int. Appl., 48 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
IC
     ICM A61K031-44
          A61K031-495; A61K031-21; A61K031-195; A61K031
                                                        16; A61K031-135;
          A61K031-04
CC
     63-6 (Pharmaceuticals)
     Section cross-reference(s): 1
FAN.CNT 1
                                            APPIZICATION NO.
                                                            DATE
     PATENT NO.
                      KIND
                            DATE
                                               ______
                                                             20000310
                                           WO 2000-US3709
                            20000921
     WO 2000054773
PΙ
                       Α1
             AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, SN,
             CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID,
             IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
             MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,
             SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 1999-123920P
                            19990312
os
     MARPAT 133:256811
     The present invention is directed to novel compns. comprising at least one
AB
```

AB The present invention is directed to novel compns. comprising at least one dopamine agonist in combination with at least one nitric oxide donor (i.e. compds. that donate, transfer or release nitric oxide, elevate endogenous levels of endothelium-derived relaxing factor, stimulate endogenous synthesis of nitric oxide or are substrates for nitric oxide synthase). The novel compns. may optionally comprise at least one therapeutic agent, such as, a vasoactive agent, an antiemetic agent, and mixts. thereof. The

dopamine agonist is preferably apomorphine. The present invention is also directed to methods for treating and/or preventing sexual dysfunctions and/or enhancing sexual responses in patients. In other embodiments, the present invention is directed to methods treating or preventing neurodegenerative diseases, mitochondrial diseases, spinal cord injury, central or psychostimulant addiction, senile dementia, circulatory disorders, cardiovascular disorders, hyperprolactinemia or myopia. The compds. and/or compns. of the present invention can also be provided in the form of a pharmaceutical kit (no data).

- ST pharmaceutical dopamine agonist sexual dysfunction; nitric oxide donor pharmaceutical sexual dysfunction
- IT Thiols (organic), biological studies
  RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(S-nitroso; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Endothelin receptors

ΙT

Circulation

- RL: BSU (Biological study, unclassified); BIOL (Biological study) (antagonists; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

- IT Contraceptives
   (condoms; pharmaceutical compns. contg. dopamine agonists in
   combination with nitric oxide donors for treating and/or preventing
   sexual dysfunctions)
- IT Nervous system .
   (degeneration; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

- Sexual behavior
  (disorder; pharmaceutical compns. contg. dopamine agonists in
  combination with nitric oxide donors for treating and/or preventing
  sexual dysfunctions)
- IT Drug delivery systems (emulsions; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing

sexual dysfunctions)

IT Alkaloids, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ergot; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dvsfunctions)

IT Drug delivery systems

(foams; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(gels; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(inhalants; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(injections; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(liposomes; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(lotions; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Vision

(myopia; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(ointments, creams; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(ointments; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(oral; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT 5-HT antagonists

Antiemetics

Antihistamines

Cholinergic antagonists

Dopamine agonists

Dopamine antagonists

Opioid antagonists

Psychostimulants

Vasoconstrictors

(pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Peptides, biological studies

Prostaglandins

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(Uses)

(pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Ion channel openers

(potassium; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Mental disorder

(senile psychosis; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(solids; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(sprays; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dvsfunctions)

IT Drug delivery systems

(sublingual; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(tablets; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(tapes, sustained-release; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(topical; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Drug delivery systems

(transdermal; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Adrenoceptor antagonists

(.alpha.-; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT Adrenoceptor antagonists

IT

(.beta.-; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT 9002-62-4, Prolactin, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (hyperprolactinemia; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

9040-59-9, 3',5' Cyclic nucleotide phosphodiesterase

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors; pharmaceutical compns. contg. dopamine agonists in combination with nitric oxide donors for treating and/or preventing sexual dysfunctions)

IT 10102-43-9, Nitric oxide, biological studies 90880-94-7,

Endothelium-derived relaxing factor

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FMU (Formation, unclassified); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)

```
(pharmaceutical compns. contg. dopamine agonists in combination with
       nitric oxide donors for treating and/or preventing sexual dysfunctions)
                            50-67-9, Serotonine, biological studies
IT
    50-60-2, Phentolamine
                                   51-64-9
                                             52-86-8, Haloperidol
    Dopamine, biological studies
                                                                    54-32-0,
                 56-85-9, Glutamine, biological studies
                                                          56-87-1, Lysine,
    Moxisylyte
                         58-00-4, Apomorphine.
                                                 58-61-7, Adenosine,
    biological studies
                                               59-92-7, biological studies
    biological studies
                         58-74-2, Papaverine
    65-28-1, Phentolamine mesylate 70-26-8, Ornithine
                                                          73-05-2,
    Phentolamine hydrochloride
                                74-79-3, L Arginine, biological studies
    74-79-3D, L-Arginine, nitrosated and nitrosylated, biological studies
    113-69-9, Benzquinamide hydrochloride
                                           138-56-7, Trimethobenzamide
    146-48-5, Yohimbine
                          156-86-5, L Homoarginine
                                                    314-19-2, Apomorphine
                    322-35-0, Benserazide
                                            364-62-5, Metoclopramide
    hydrochloride
                           458-24-2, Fenfluramine
                                                    511-12-6,
    372-75-8, Citrulline
                        519-10-8, Lysergin
                                             768-94-5, Amantadine
    Dihydroergotamine
    p-Chloromethylamphetamine
                               1744-22-5, Riluzole
                                                     3254-89-5, Diphenidol
                    3605-01-4, Piribedil
                                           4774-53-2, Botiacrine
    hydrochloride
                7424-00-2, p-Chlorophenylalanine 14008-44-7, Metopimazine
    Clozapine
                           16378-21-5, Piroheptine
                                                      17479-19-5,
    15676-16-1, Sulpiride
    Dihydroergocristine 17692-51-2, Metergoline
                                                    18016-80-3, Lisuride
    18426-20-5, N-n-Propyl norapomorphine
                                            19216-56-9, Prazosin
    Trazodone 22232-71-9, Mazindol
                                       25447-66-9, Dihydroergocryptine
    25614-03-3, Bromocriptine
                                32359-34-5, Medifoxamine
                                                           34911-55-2,
                36945-03-6, Lergotrile
                                         37221-79-7, Vasoactive intestinal
    Bupropion
              37686-84-3, Terguride
                                      37762-06-4, Zaprinast
                                                              42599-90-6D,
    nitrosated and nitrosylated
                                  56577-02-7, S-Nitroso-n-acetylcysteine
     57564-91-7, S-Nitroso glutathione 57574-09-1, Amineptine
                                                                 57808-66-9,
    Domperidone
                  57935-49-6, Tiomergine
                                          63590-64-7, Terazosin 64795-35-3,
    Mesulergine
                   66104-22-1, Pergolide
                                          66195-31-1, Ibopamine
                                                                  66759-48-6,
                   67227-56-9, Fenoldopam
                                            67287-49-4, Skf 38393
     Desocriptine
     71636-61-8, Skf 81297
                            71800-28-7, Propylbutyldopamine
                                                              74191-85-8,
                74639-40-0, Docarpamine
                                          79032-48-7, S-Nitroso-N-
     Doxazosin
                         80373-22-4, Quinpirole 81409-90-7,
    acetylpenicillamine
    Cabergoline
                  84226-12-0, Eticlopride
                                            86197-47-9, Dopexamine
    87056-78-8, Quinagolide 88058-88-2, Naxagolide
                                                       89419-40-9, Mosapramine
                              98323-83-2, Carmoxirole
                                                       101626-70-4, Talipexole
     91374-21-9, Ropinirole
                               112885-41-3, Mosapride
                                                        122130-63-6, S-Nitroso
     104632-26-0, Pramipexole
                125978-95-2, Nitric oxide synthase
                                                     139427-42-2,
     captopril
     S-Nitrosohomocysteine
                            139755-83-2, Sildenafil
                                                     171596-29-5, Ic 351
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (pharmaceutical compns. contg. dopamine agonists in combination with
        nitrie oxide donors for treating and/or preventing sexual dysfunctions)
RE.CNT
             THERE ARE 4; CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Cooke; US 5891459 A 1999 HCAPLUS
(2) El-Rashid, Y; US 57/70606 A 1998 HCAPLUS
(3) Schoenleder; US 4963568 A 1990 HCAPLUS
(4) The United States Of America; WO 9632118 A 1996 HCAPLUS
    81409-90-7, Cabergoline
IT
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (pharmageutical compns. contg. dopamine agonists in combination with
        nitric oxide donors for treating and/or preventing sexual dysfunctions)
     81409-90-/7 HCAPLNS
RN
```

Ergoline 8-carboxamide, N-[3-(dimethylamino)propyl]-N-

[(ethylamino)carbonyl) 6-(2-propenyl)-, (8.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CN

=> fil uspatall FILE 'USPATFULL' ENTERED AT 10:07:45 ON 28 JUL 2003 CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 10:07:45 ON 28 JUL 2003 CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> d 185 tot bib abs kwic hitstr

```
ANSWER 1 OF 8 USPATFULL on STN
       2003:113532 USPATFULL
AN
ΤI
       Compounds for the treatment of addictive disorders
       Anderson, Richard W., Annandale, NJ, UNITED STATES
IN
       McBrinn, Sylvia S., Stockton, NJ, UNITED STATES
       Robertson, \David W., Galesburg, MI, UNITED STATES
       Marshall, Robert C., Mattawan, MI, UNITED STATES
PΙ
       us 2003078273
                          Α1
                               20030424
       US 2002-295331
ΑI
                          Α1
                               20021115 (10)
       Division of Ser. No. US 2001-929666, filed on 14 Aug 2001, PENDING
RLI
                           20010123 (60)
PRAI
       US 2001-263610P
       US 2000-225714P
                           20000816 (60)
                                                                      <--
DT
       Utility
FS
       APPLICATION
                                    6300_SEÁRS TOWER, 233 SOUTH WACKER, CHICAGO,
       MARSHALL, GERSTEIN & BÓRUN,
LREP
       IL, 60606-6357
CLMN
       Number of Claims: 25
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 831
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       The treatment of addictive disorders, psychoactive substance
       use disorders, intoxication disorders, inhalation disorders, alcohol
       addiction, tobacco addiction, and nicotine
       addiction using a heterocyclic amine, a phenylazacycloalkane, a
       cabergoline, or an aromatic bicyclic amine active agent, or a
```

pharmaceutically acceptable derivative or salt of any said active agent

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

is described herein.

TI Compounds for the treatment of addictive disorders

PRAI US 2000-225714P 20000816 (60)

AB The treatment of addictive disorders, psychoactive substance

use disorders, intoxication disorders, inhalation disorders, alcohol addiction, tobacco addiction, and nicotine addiction using a heterocyclic amine, a phenylazacycloalkane, a cabergoline, or an aromatic bicyclic amine active agent, or a pharmaceutically acceptable derivative.

SUMM . . . improving symptoms of, several nervous system disorders. More particularly, the invention relates to treatment and improvement of symptoms related to addictive disorders, psychoactive substance use disorders, nicotine addiction, and tobacco addiction.

SUMM . . . whether these compounds having useful properties for treating neuromuscular disorders can be used for treating other nervous system disorders, particularly addictive diseases. More particularly, the use of these compounds for nervous systems disorders, for example, addictive disorders, psychoactive substance use disorders, nicotine addiction, or tobacco addiction resulting in smoking cessation, have been considered.

SUMM . . . compounds, aromatic bicyclic amine compounds have also been investigated for potential activity useful for treating nervous system disorders, such as addictive diseases. The aromatic bicyclic amine compounds have been reported to demonstrate activity useful for treatment of some central nervous system. . .

SUMM [0010] Methods for using the described compounds for treating addictive-type nervous disorders has not been reported. Methods and dosages for using heterocyclic amine compounds, phenylazacycloalkane compounds, cabergoline, aromatic bicyclic amine compounds and the derivatives of these classes of compounds for treating specific addictive disorders are described herein.

SUMM [0011] The invention provides a method for the treatment of certain addictive disorders, for example, psychoactive substance use disorders, nicotine addiction or tobacco addiction (with a result of smoking cessation or a decrease in smoking). The method includes the step of administering a therapeutically. . . amine compound, or a pharmaceutically acceptable salt or derivative thereof, to a patient suffering from or susceptible to such an addiction or disorder.

DETD . . . can be used to treat and ameliorate nervous system disorders. The disorders typically can include, but are not limited to, addictive disorders, psychoactive substance use disorders, nicotine addition, tobacco addiction, and other diseases or disorders related to affliction of the nervous system, and more particularly, the central nervous system.

DETD . . . classes of compounds can be used for treating or suppressing the symptoms of conditions related to nervous system affliction, particularly addictive disorders. Examples of at least the following classes of compounds are provided for the method of the invention.

DETD [0122] For treating the **addictive** disorders described herein the drug may also be provided in chewable format, such as a chewing gum. The amount of. . .

DETD [0127] Addictive disorders and psychoactive substance use disorders, such as intoxication disorders, inhalation disorders, alcohol addiction, tobacco addiction and/or nicotine addiction can be treated according to the invention. Tobacco and nicotine addiction would be treated with the goal of achieving either smoking cessation or at least a reduction in the intake of tobacco and/or nicotine. General descriptions of addictive disorders, including disorders related to intoxication, inhalants, and tobacco addiction or nicotine addiction can be found in many standard sources. The addictions and behaviors that can be treated by the invention generally are further described in, for example, The American Psychiatric Press. . .

DETD . . . other psychoactive substance use disorders such as, for

example, disorders related to intoxication or inhalants, more particularly tobacco or nicotine addiction. The effect of the invention on tobacco addiction more particularly involves the administration of the active agent in a manner and form that reduces the symptoms of the. . .

CLM What is claimed is:

1. A method of treating or suppressing the symptoms of at least one disorder selected from addictive disorders, psychoactive substance use disorders, intoxication disorders, inhalation disorders, alcohol addiction, tobacco addiction, and nicotine addiction, said method comprising the step of administering a therapeutically effective, nontoxic amount of an active agent selected from the group. . .

. method of claim 1 wherein the active agent is used to treat or enhance the treatment of tobacco and/or nicotine addiction.

- IT Drug dependence
- IT Tobacco smoke

(compds. for the treatment of addictive disorders)

IT 54-11-5, Nicotine 64-17-5, Ethanol, biological studies (compds. for the treatment of addictive disorders)

IT 81409-90-7, Cabergoline 156907-84-5 170858-36-3 170858-41-0 173590-06-2 **179386-43-7 282522-93-4** 

**282522-94-5** 369595-93-7 400716-28-1 400716-30-5 400716-32-7

(compds. for the treatment of addictive disorders)

RN 54-11-5 USPATFULL

CN Pyridine, 3-[(2S)-1-methyl-2-pyrrolidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 64-17-5 USPATFULL

CN Ethanol (9CI) (CA INDEX NAME)

H<sub>3</sub>C- СH<sub>2</sub>- ОН

IT 179386-43-7 282522-93-4 282522-94-5

(compds. for the treatment of addictive disorders)

RN 179386-43-7 USPATFULL

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 282522-93-4 USPATFULL CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 282522-94-5 USPATFULL CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 282522-93-4 CMF C11 H13 N3 S

. Absolute stereochemistry.

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

```
L85 ANSWER 2 OF 8 USPATFULL on STN
       2002:259436 USPATFULL
AN
       Compounds for treating fibromyalgia and chronic fatigue syndrome
ΤI
       McCall, Robert B., Kalamazoo, MI, UNITED STATES
IN
       Marshall, Robert\Clyde, Mattawan, MI, UNITED STATES
       Robertson, David W., Galésburg, MI, UNITED STATES
       Ashley, Thomas M., Portage, MI, UNITED STATES
       حرUS 2002143010
PΙ
                          A1
                               20021003
       US 6555548
                          B2
                               20030429
       US 2002-159913
                          Α1
                               20020530 (10)
ΑI
       Division of Ser. No. US 2001-836660, filed on 17 Apr 2001, PENDING
RLI
       US 2000-198959P
                           20000421. (60)
PRAI
                           20000428 (60)
       US 2000-200569P
DT
       Utility
FS
       APPLICATION
       Pharmacia & Upjohn Company, Global Intellectual Property, 301 Henrietta
LREP
       Street, Kalamazoo, MI, 49001
CLMN
       Number of Claims: 30
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 763
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention provides for methods for the treatment of
AΒ
       fibromyalgia syndrome or chronic fatigue syndrome by the administration
       of heterocyclic amine-type compounds, substituted phenylazacycloalkane-
       type compounds, or cabergoline-type compounds, or a salt of any said
       compound.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                        20000421 (60)
                                                                     <--
PRAI
       US 2000-198959P
                           20000428 (60)
                                                                     <--
PRAI
       US 2000-200569P
SUMM
            . used medications produce side effects ranging from mild side
       effects, e.g., drowsiness, dizziness, and nausea to <u>serious side</u>
       effects, e.g., addiction and liver damage
   282522-93-4P, (5R)-5-(Methylamino)-5,6-dihydro-4H-imidazo[4,5,1-
      ij]quinoline-2(1H)-thione 282522-94-5P
        (prepn. of heterocyclic amines for treating fibromyalgia and chronic
        fatigue syndrome)
IT
      81409-90-7, Cabergoline
                                156907-84-5
                                              173590-06-2 179386-43-7
                    369595-93-7
      179386-44-8
        (prepn. of heterocyclic amines for treating fibromyalgia and chronic
        fatigue syndrome)
   282522-93-4P, (5R)-5-(Methylamino)-5,6-dihydro-4H-imidazo[4,5,1-
      ij]quinoline-2(1H)-thione 282522-94-5P
        (prepn. of heterocyclic amines for treating fibromyalgia and chronic
        fatigue syndrome)
RN
     282522-93-4 USPATFULL
     4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-,
CN
       (5R) - (9CI) (CA INDEX NAME)
       Absolute stereochemistry.
               NHMe
```

NHMe R NHMe

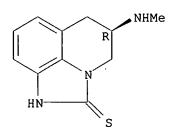
282522-94-5 USPATFULL RN CN

4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM

282522-93-4 CRN CMF C11 H13 N3 S

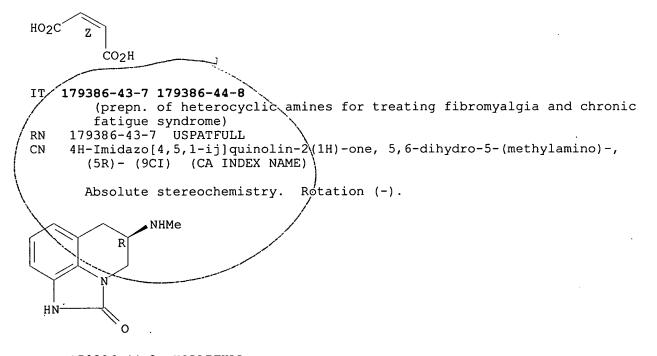
Absolute stereochemistry.



CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.



179386-44-8 USPATFULL RN CN

4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

179386-43-7 CRN CMF C11 H13 N3 O Absolute stereochemistry. Rotation (-).

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

```
ANSWER 3 OF 8 USPATFULL on STN
L85
       2002:99494 USPATFULL
ΑN
       Diphenyl ether compounds useful in therapy
TΙ
       Andrews, Mark David, Kent, UNITED KINGDOM
IN
       Hepworth, David, Kent, UNITED KINGDOM
       Middleton, Donald Stuart, Kent, UNITED KINGDOM
       Stobie, Alan, Kent, UNITED KINGDOM
       US 2002052395
                          A1
                                20020502
PΙ
       US 6448293
                                20020910
                           B2
ΑI
       US 2001-810378
                          A1
                                <del>200</del>10316 (9)
                           20000331
                                                                      <--
PRAI
       GB 2000-7884
       US 2000-197127P
                            20000414
                                                                      <--
DΤ
       Utility
FS
       APPLICATION
       Paul H. Ginsburg, Pfizer Inc., 20th Floor, 235 East 42nd Street, New
LREP
       York, NY, 10017-5755
       Number of Claims: 29
CLMN
ECL
       Exemplary Claim: 1
       No Drawings
DRWN
LN.CNT 4655
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A compound of general formula (I), or pharmaceutically acceptable salts,
AB
       solvates or polymorphs thereof; wherein; R.sup.1 and R.sup.2, which may
       be the same or different, are hydrogen, C.sub.1-C.sub.6alkyl,
       (CH.sub.2)m(C.sub.3-C.sub.6cycloalkyl) wherein m =0, 1, 2 or 3, or
       R.sup.1 and R.sup.2 together with the nitrogen to which they are
       attached form an azetidine ring; each R.sup.3 is independently CF.sub.3,
       OCF.sub.3, C.sub.1-4alkylthio or C.sub.1-C.sub.4alkoxy; n is 1, 2 or 3;
       and R.sup.4 and R.sup.5, which may be the same or different, are: A-X,
       wherein A = --CH = CH - - or --(CH.sub.2)p - - where p is 0, 1 or 2; X is
       hydrogen, F, Cl, Br, I, CONR.sup.6R.sup.7, SO.sub.2NR.sup.6R.sup.7,
       SO.sub.2NHC(=0)R.sup.6, OH, C.sub.1-4alkoxy, NR.sup.8SO.sub.2R.sup.9,
       NO.sub.2, NR.sup.6R.sup.11, CN, CO.sub.2R.sup.10, CHO, SR.sup.10,
       S(0)R.sup.9 or SO.sub.2R.sup.10 R.sup.6, R.sup.7, R and R.sup.10 which
```

may be the same or different, are hydrogen or C.sub.1-6alkyl optionally substituted independently by one or more R.sup.12; R.sup.9 is C.sub.1-6 alkyl optionally substituted independently by one or more R.sup.12; R.sup.11 is hydrogen, C.sub.1-6 alkyl optionally substituted independently by one or more R.sup.12, C(0)R.sup.6, CO.sub.2R.sup.9, C(O)NHR.sup.6 or SO.sub.2NR.sup.6R.sup.7; R.sup.12 is F, OH, CO.sub.2H, C.sub.3-6cycloalkyl, NH.sub.2, CONH.sub.2, C.sub.1-6alkoxy, C.sub.1-6alkoxycarbonyl or a 5- or 6-membered heterocyclic ring containing 1, 2 or 3 heteroatoms selected from N, S and O optionally substituted independently by one or more R.sup.13; or R.sup.6 and R.sup.7, together with the nitrogen to which they are attached, form a 4-, 5- or 6-membered heterocyclic ring optionally substituted independently by one or more R.sup.13; or a 5- or 6-membered heterocyclic ring containing 1, 2 or 3 heteroatoms selected from N, S and O, optionally substituted independently by one or more R.sup.13; wherein R.sup.13 is hydroxy, C.sub.1-C.sub.4alkoxy, F, C.sub.1-C.sub.6alkyl, haloalkyl, haloalkoxy, --NH.sub.2, --NH(C.sub.1-C.sub.6alkyl) or --N(C.sub.1-C.sub.6alkyl).sub.2; wherein when R.sup.1 and R.sup.2 are methyl, R.sup.4 and R.sup.5 are hydrogen and n is 1, R.sup.3is not a -- SMe group para to the ether linkage ##STR1## linking rings A and B.

```
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                            20000331
                                                                        <--
       GB 2000-7884
PRAI
                                                                        <--
PRAI
       US 2000-197127P
                            20000414 (60)
          . . posttraumatic stress syndrome, avoidant personality disorder,
SUMM
       premature ejaculation, eating disorders (e.g. anorexia nervosa and
       bulimia nervosa), obesity, chemical dependencies (e.g.
       addictions to alcohol, cocaine, heroin, phenobarbital, nicotine
       and benzodiazepines), cluster headache, migraine, pain, Alzheimers
       disease, obsessive-compulsive disorder, panic disorder, memory
       disorders.
       [0139] Dopamine D2 agonists (e.g. Premiprixal, Pharmacia Upjohn compound
SUMM
       number PNU95666);
ΙT
      Drugs of abuse
        (abuse of, treatment; prepn. of di-Ph ether compds. as serotonin
        re-uptake inhibitors)
    ANSWER 4 OF 8 USPATFULL on STN
L85
       2002:92682 USPATFULL
ΑN
       Compounds for the treatment of addictive disorders
ΤI
IN
       Anderson, Richard W., Annandale, NJ, UNITED STATES
       McBrinn, Sylvia S., Stockton, NJ, UNITED STATES Robertson, David W., Galesburg, MI, UNITED STATES
       Marshall, Robert C., Mattawah, MI, UNITED STATES
       US 2002049206
                                20020425
PΤ
                          A1
                            A1 20010814 (9)
20010123 (60)
20000816 (60)
       US 2001-929666
AΙ
                           Α1
PRAI
       US 2001-263610P
       US 2000-225714P
DT
       Utility
FS
       APPLICATION
       MARSHALL, O'TOOLE, GERSTEIN, MURRAY & BORUN, 6300 SEARS TOWER, 233 SOUTH
LREP
       WACKER DRIVE, CHICAGO, IL, 60606-6402
       Number of Claims: 25
CLMN
       Exemplary Claim: 1
ECL
       No Drawings
DRWN
LN.CNT 830
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The treatment of addictive disorders, psychoactive substance
AB
       use disorders, intoxication disorders, inhalation disorders, alcohol
       addiction, tobacco addiction, and nicotine
       addiction using a heterocyclic amine, a phenylazacycloalkane, a
       cabergoline, or an aromatic bicyclic amine active agent, or a
```

pharmaceutically acceptable derivative or salt of any said active agent is described herein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Compounds for the treatment of addictive disorders

PRAI US 2000-225714P 20000816 (60)

<--

AB The treatment of addictive disorders, psychoactive substance use disorders, intoxication disorders, inhalation disorders, alcohol addiction, tobacco addiction, and nicotine addiction using a heterocyclic amine, a phenylazacycloalkane, a cabergoline, or an aromatic bicyclic amine active agent, or a pharmaceutically acceptable derivative. . .

SUMM . . . improving symptoms of, several nervous system disorders. More particularly, the invention relates to treatment and improvement of symptoms related to addictive disorders, psychoactive substance use disorders, nicotine addiction, and tobacco addiction.

SUMM . . . whether these compounds having useful properties for treating neuromuscular disorders can be used for treating other nervous system disorders, particularly addictive diseases. More particularly, the use of these compounds for nervous systems disorders, for example, addictive disorders, psychoactive substance use disorders, nicotine addiction, or tobacco addiction resulting in smoking cessation, have been considered.

SUMM . . . compounds, aromatic bicyclic amine compounds have also been investigated for potential activity useful for treating nervous system disorders, such as addictive diseases. The aromatic bicyclic amine compounds have been reported to demonstrate activity useful for treatment of some central nervous system. . .

SUMM [0010] Methods for using the described compounds for treating addictive-type nervous disorders has not been reported. Methods and dosages for using heterocyclic amine compounds, phenylazacycloalkane compounds, cabergoline, aromatic bicyclic amine compounds and the derivatives of these classes of compounds for treating specific addictive disorders are described herein.

SUMM [0011] The invention provides a method for the treatment of certain addictive disorders, for example, psychoactive substance use disorders, nicotine addiction or tobacco addiction (with a result of smoking cessation or a decrease in smoking). The method includes the step of administering a therapeutically. . . amine compound, or a pharmaceutically acceptable salt or derivative thereof, to a patient suffering from or susceptible to such an addiction or disorder.

DETD . . . can be used to treat and ameliorate nervous system disorders. The disorders typically can include, but are not limited to, addictive disorders, psychoactive substance use disorders, nicotine addition, tobacco addiction, and other diseases or disorders related to affliction of the nervous system, and more particularly, the central nervous system.

DETD . . . classes of compounds can be used for treating or suppressing the symptoms of conditions related to nervous system affliction, particularly addictive disorders. Examples of at least the following classes of compounds are provided for the method of the invention.

DETD [0118] For treating the **addictive** disorders described herein the drug may also be provided in chewable format, such as a chewing gum. The amount of. . .

DETD [0123] Addictive disorders and psychoactive substance use disorders, such as intoxication disorders, inhalation disorders, alcohol addiction, tobacco addiction and/or nicotine addiction can be treated according to the invention. Tobacco and nicotine addiction would be treated with the goal of achieving either smoking cessation or at least a reduction in the intake of

tobacco and/or nicotine. General descriptions of addictive disorders, including disorders related to intoxication, inhalants, and tobacco addiction or nicotine addiction can be found in many standard sources. The addictions and behaviors that can be treated by the invention generally are further described in, for example, The American Psychiatric Press. . .

DETD . . . other psychoactive substance use disorders such as, for example, disorders related to intoxication or inhalants, more particularly tobacco or nicotine addiction. The effect of the invention on tobacco addiction more particularly involves the administration of the active agent in a manner and form that reduces the symptoms of the. . .

CLM What is claimed is:

1. A method of treating or suppressing the symptoms of at least one disorder selected from addictive disorders, psychoactive substance use disorders, intoxication disorders, inhalation disorders, alcohol addiction, tobacco addiction, and nicotine addiction, said method comprising the step of administering a therapeutically effective, nontoxic amount of an active agent selected from the group. . .

. method of claim 1 wherein the active agent is used to treat or enhance the treatment of tobacco and/or nicotine addiction.

IT Drug dependence

IT Tobacco smoke

(compds. for the treatment of addictive disorders)

IT 54-11-5, Nicotine 64-17-5, Ethanol, biological studies
 (compds. for the treatment of addictive disorders)

IT 81409-90-7, Cabergoline 156907-84-5 170858-36-3 170858-41-0 173590-06-2 **179386-43-7 282522-93-4 282522-94-5** 369595-93-7 400716-28-1 400716-30-5 400716-32-7

(compds. for the treatment of addictive disorders)

RN 54-11-5 USPATFULL

CN Pyridine, 3-[(2S)-1-methyl-2-pyrrolidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 64-17-5 USPATFULL CN Ethanol (9CI) (CA INDEX NAME)

H<sub>3</sub>C- СH<sub>2</sub>- ОН

IT 179386-43-7 282522-93-4 282522-94-5

(compds. for the treatment of addictive disorders)

RN 179386-43-7 USPATFULL

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 282522-93-4 USPATFULL

CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

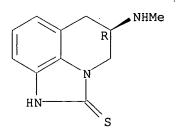
RN 282522-94-5 USPATFULL

CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 282522-93-4 CMF C11 H13 N3 S

Absolute stereochemistry.



CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

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Page 50
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kim - 09 / 929666
1.85
    ANSWER 5 OF 8 USPATFULL on STN
       2002:8510 USPATFULL
AN
ΤI
       Compounds for treating fibromyalgia and chronic fatigue syndrome
IN
       McCall, Robert B., Kalamazoo, MI, UNITED STATES
       Marshall, Robert Clyde, Mattawan, MI, UNITED STATES
       Robertson, David W., Galesburg, MI, UNITED STATES
       Ashley, Thomas M., Portage MI, UNITED STATES
                          A1
                                20020110
PΙ
       US 2002004510
       US 6448258
                          B2
                                20020910
ΑI
       US 2001-836660
                          Α1
                                20010417 (9)
PRAI
       US 2000-198959P
                           20000421 (60)
                                                                      <--
       US 2000-200569P
                           20000428 (60)
                                                                      <--
DT
       Utility
FS
       APPLICATION
       Austin'W. Zhang, Pharmacia & Upjohn Company, Global Intellectual
LREP.
       Property, 301 Henrietta Street, Kalamazoo, MI, 49001
CLMN
       Number of Claims: 30
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 766
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention provides for methods for the treatment of
AB
       fibromyalgia syndrome or chronic fatigue syndrome by the administration
       of heterocyclic amine-type compounds, substituted phenylazacycloalkane-
       type compounds, or cabergoline-type compounds, or a salt of any said
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

PRAI US 2000-198959P 20000421 (60)

PRAI US 2000-200569P 20000428 (60) <--

SUMM . . . used medications produce side effects ranging from mild side effects, e.g., drowsiness, dizziness, and nausea to serious side effects, e.g., addiction and liver damage.

IT **282522-93-4P**, (5R)-5-(Methylamino)-5,6-dihydro-4H-imidazo[4,5,1-

ij]quinoline-2(1H)-thione 282522-94-5P

(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

IT 81409-90-7, Cabergoline 156907-84-5 173590-06-2 **179386-43-7 179386-44-8** 369595-93-7

(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

IT 282522-93-4P, (5R)-5-(Methylamino)-5,6-dihydro-4H-imidazo[4,5,1-

ij]quinoline-2(1H)-thione 282522-94-5P

(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

RN 282522-93-4 USPATFULL

compound.

CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 282522-94-5 USPATFULL

CN 4H-Imidazo[4,5,1-ij]quinoline-2(1H)-thione, 5,6-dihydro-5-(methylamino)-,

(5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 282522-93-4 CMF C11 H13 N3 S

Absolute stereochemistry.

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

## IT 179386-43-7 179386-44-8

(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

RN 179386-43-7 USPATFULL

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 179386-44-8 USPATFULL

CN 4H-Imidazo[4,5,1-ij]quinolin-2(1H)-one, 5,6-dihydro-5-(methylamino)-, (5R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 179386-43-7 CMF C11 H13 N3 O

Absolute stereochemistry. Rotation (-).

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

```
L85
     ANSWER 6 OF 8 USPAT2 on STN
AN
       2002:259436 USPAT2
       Compounds for treating fibromyalgia and chronic fatigue syndrome
ΤI
       McCall, Robert B., Kalamazoo, MI, United States
IN
       Marshall, Robert Clyde, Mattawan, MI, United States
       Robertson, David W., Galesburg, MI, United States
       Ashley, Thomas M., Portage, MI, United States
       Pharmacia & Upjohn Company, Kalamazoo, MI, United States (U.S.
PA
       corporation)
       US 6555548
                                20030429
PΙ
                          B2
       US 2002-159913
                                20020530 (10)
ΑI
RLI
       Division of Ser. No. US 2001-836660, filed on 17 Apr 2001, now patented,
       Pat. No. US 6448258
PRAI
       US 2000-198959P
                           20000421 (60)
                                                                      <--
       US 2000-200569P
                           20000428 (60)
                                                                      <--
DT
       Utility
FS
       GRANTED
EXNAM
       Primary Examiner: Spivack, Phyllis G.
       Zhang, Austin W.
LREP
       Number of Claims: 4
CLMN
ECL
       Exemplary Claim: 1
       0 Drawing Figure(s); 0 Drawing Page(s)
DRWN
LN.CNT 635
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention provides for methods for the treatment of
AB
       fibromyalgia syndrome or chronic fatigue syndrome by the administration
       of cabergoline-type compounds or a salt of said compound.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       US 2000-198959P
                           20000421 (60)
                                                                      <--
PRAI
       US 2000-200569P
                           20000428 (60)
                                                                      <--
PRAI
             . used medications produce side effects ranging from mild side
SUMM
       effects, e.g., drowsiness, dizziness, and nausea to serious side
       effects, e.g., addiction and liver damage
    282522-93-4P, (5R)-5-(Methylamino)-5,6-dihydro-4H-imidazo[4,5,1-
      ij]quinoline-2(1H)-thione 282522-94-5P
```

(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

IT 81409-90-7, Cabergoline 156907-84-5 173590-06-2 **179386-43-7** 

**179386-44-8** 369595-93-7

(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

IT 282522-93-4P, (5R)-5-(Methylamino)-5,6-dihydro-4H-imidazo[4,5,1-

ij]quinoline-2(1H)-thione 282522-94-5P

(prepn. of heterocyclic amines for treating fibromyalgia and chronic fatigue syndrome)

## => d 185 bib abs kwic hitrn 7 8

L85 ANSWER 7 OF 8 USPAT2 on STN AN 2002:99494 USPAT2 TΙ Diphenyl ether compounds useful in therapy IN Andrews, Mark David, Kent, UNITED KINGDOM Hepworth, David, Kent, UNITED KINGDOM Middleton, Donald Stuart, Kent, UNITED KINGDOM Stobie, Alan, Kent, UNITED KINGDOM Pfizer Inc., New York, NY, United States (U.S. corporation) PA 20020910 PΙ US 6448293 ₿2 US 2001-810378 20010316 (9) ΑI GB 2000-7884 20000331 <--PRAI US 2000-197127P 20000414 (60) <--DT Utility GRANTED FS Primary Examiner: Gerstl, Robert EXNAM Richardson, Peter C., Ginsburg, Paul H., Appleman, Jolene W. LREP Number of Claims: 28 CLMN Exemplary Claim: 1 ECL 0 Drawing Figure(s); 0 Drawing Page(s) DRWN LN.CNT 4240 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A compound of general formula (I), or pharmaceutically acceptable salts, AB solvates or polymorphs thereof; wherein; R.sup.1 and R.sup.2, which may be the same or different, are hydrogen, C.sub.1-C.sub.6alkyl, (CH.sub.2).sub.m (C.sub.3-C.sub.6cycloalkyl) wherein m =0, 1, 2 or 3, or R.sup.1 and R.sup.2 together with the nitrogen to which they are attached form an azetidine ring; each R.sup.3 is independently CF.sub.3, OCF.sub.3, C.sub.1-4alkylthio or C.sub.1-C.sub.4alkoxy; n is 1, 2 or 3; and R.sup.4 and R.sup.5, which may be the same or different, are: A--X, wherein A = --CH = CH - - or --(CH.sub.2)p - - where p is 0, 1 or 2; X is hydrogen, F, Cl, Br, I, CONR.sup.6R.sup.7, SO.sub.2NR.sup.6R.sup.7, SO.sub.2NHC(=0)R.sup.6, OH, C.sub.1-4alkoxy, NR.sup.8SO.sub.2R.sup.9, NO.sub.2, NR.sup.6R.sup.11, CN, CO.sub.2R.sup.10, CHO, SR.sup.10, S(0) R. sup. 9 or SO. sub. 2R. sup. 10; R. sup. 6, R. sup. 7, R. sup. 8 and R. sup. 10 which may be the same or different, are hydrogen or C.sub.1-6alkyl optionally substituted independently by one or more R.sup.12; R.sup.9 is C.sub.1-6 alkyl optionally substituted independently by one or more R.sup.12; R.sup.11 is hydrogen, C.sub.1-6 alkyl optionally substituted independently by one or more R.sup.12, C(0)R.sup.6, CO.sub.2R.sup.9, C(O)NHR.sup.6 or SO.sub.2NR.sup.6R.sup.7; R.sup.12 is F, OH, CO.sub.2H, C.sub.3-6cycloalkyl, NH.sub.2, CONH.sub.2, C.sub.1-6alkoxy, C.sub.1-6alkoxycarbonyl or a 5- or 6-membered heterocyclic ring containing 1, 2 or 3 heteroatoms selected from N, S and O optionally substituted independently by one or more R.sup.13; or R.sup.6 and R.sup.7, together with the nitrogen to which they are attached, form a 4-, 5- or 6-membered heterocyclic ring optionally substituted independently by one or more R.sup.13; or a 5- or 6-membered

heterocyclic ring containing 1, 2 or 3 heteroatoms selected from N, S and O, optionally substituted independently by one or more R.sup.13; wherein R.sup.13 is hydroxy, C.sub.1-C.sub.4alkoxy, F, C.sub.1-C.sub.6alkyl, haloalkyl, haloalkoxy, --NH.sub.2, --NH(C.sub.1-C.sub.6alkyl) or --N(C.sub.1-C.sub.6alkyl).sub.2; wherein when R.sup.1 and R.sup.2 are methyl, R.sup.4 and R.sup.5 are hydrogen and n is 1, R.sup.3is not a --SMe group para to the ether linkage linking rings A and B. ##STR1##

```
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                                                                     <--
      GB 2000-7884
                           20000331
PRAI
PRAI
       US 2000-197127P
                           20000414 (60)
                                                                     <--
         . . posttraumatic stress syndrome, avoidant personality disorder,
SUMM
       premature ejaculation, eating disorders (e.g. anorexia nervosa and
       bulimia nervosa), obesity, chemical dependencies (e.g.
       addictions to alcohol, cocaine, heroin, phenobarbital, nicotine
       and benzodiazepines), cluster headache, migraine, pain, Alzheimers
       disease, obsessive-compulsive disorder, panic disorder, memory
       Dopamine D2 agonists (e.g. Premiprixal, Pharmacia Upjohn compound number
SUMM
       PNU95666);
ΙT
      Drugs of abuse
        (abuse of, treatment; prepn. of di-Ph ether compds. as serotonin
        re-uptake inhibitors)
    ANSWER 8 OF 8 USPAT2 on STN
1.85
       2002:8510 USPAT2
AN
       Treating fibromyalgia and chronic fatigue syndrome
ΤI
       McCall, Robert B., Kalamazoo, MI, United States
TN
       Marshall, Robert Clyde, Mattawan, MI, United States
       Robertson, David W., Galesburg, MI, United States
       Ashley, Thomas M., Portage, MI, United States
       Pharmacia & Upjohn Company, Kalamazoo, MI, United States (U.S.
PA
       corporation)
                               20020910
PΙ
       US 6448258
                          B2
       US 2001-836660
                               20010417 (9)
ΑI
                                                                     <--
       US 2000-198959P
                           20000421 (60)
PRAI
                                                                     <--
       US 2000-200569P
                           20000428 (60)
DΤ
       Utility
FS
       GRANTED
      Primary Examiner: Spivack, Phyllis G.
EXNAM
LREP
       Zhang, Austin W.
CLMN
       Number of Claims: 14
ECL
       Exemplary Claim: 1
       0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 682
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention provides for methods for the treatment of
AB
       fibromyalgia syndrome or chronic fatigue syndrome by the administration
       of heterocyclic amine-type compounds or a salt of any said compound.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                       20000421 (60)
       US 2000-198959P
                                                                     <--
PRAI
       US 2000-200569P
                           20000428 (60)
                                                                     <--
PRAT
            . used medications produce side effects ranging from mild side
SUMM
       effects, e.g., drowsiness, dizziness, and nausea to serious side
       effects, e.g., addiction and liver damage.
   282522-93-4P, (5R)-5-(Methylamino)-5,6-dihydro-4H-imidazo[4,5,1-
      ij]quinoline-2(1H)-thione 282522-94-5P
        (prepn. of heterocyclic amines for treating fibromyalgia and chronic
        fatigue syndrome)
```

ΙT

81409-90-7, Cabergoline

369595-93-7

179386-44-8

156907-84-5 173590-06-2 **179386-43-7** 

```
(prepn. of heterocyclic amines for treating fibromyalgia and chronic
        fatigue syndrome)
     282522-93-4P, (5R)-5-(Methylamino)-5,6-dihydro-4H-imidazo[4,5,1-
IT
      ij]quinoline-2(1H)-thione 282522-94-5P
        (prepn. of heterocyclic amines for treating fibromyalgia and chronic
        fatigue syndrome)
IT
     179386-43-7 179386-44-8
        (prepn. of heterocyclic amines for treating fibromyalgia and chronic
        fatigue syndrome)
=> d his
     (FILE 'HOME' ENTERED AT 09:13:29 ON 28 JUL 2003)
                SET COST OFF
     FILE 'HCAPLUS' ENTERED AT 09:13:44 ON 28 JUL 2003
L1
              1 S US20020049206/PN
                SEL RN
     FILE 'REGISTRY' ENTERED AT 09:14:01 ON 28 JUL 2003
L2
             14 S E1-E14
              3 S L2 AND NCNC2-NC5-C6/ES
L3
L4
             38 S (179386-43-7 OR 282522-93-4)/CRN
L5
              1 S MALEIC ACID/CN
              1 S 2-BUTENEDIOIC ACID/CN
L6
L7
              2 S C4H4O4 AND L4
L8
              4 S L3, L7
     FILE 'HCAPLUS' ENTERED AT 09:23:46 ON 28 JUL 2003
L9
             26 S L8
             17 S (PNU OR U) () (95666 OR 95666E OR 95() (666 OR 666E OR 666 "E"))
L10
             30 S L9, L10
L11
L12
              1 S L11 AND ADDICT?
                E DRUG DEPENDENCE/CT
           8194 S E3, E4
L13
                E E3+ALL
          11975 S E3+NT
L14
                E E10+ALL
L15
          40766 S E4, E3+NT
                E SUBSTANCE ABUSE/CT
                E E3+ALL
L16
           2052 S E2 .
                E ADDICTION/CT
                E WITHDRAWAL/CT
                E TOBACCO/CT
                E TOBACCO SMOKE/CT
          16079 S E3-E9
L17
                E E6+ALL
           8814 S E1
L18
                E E2+ALL
           7652 S E2,E1+NT
L19
                E ALCOHOLISM/CT
           3450 S E3
L20
                E E3+ALL
           1072 S E5
L21
              2 S L11 AND L13-L21
L22
              1 S L22 NOT RESTLESS LEG
L23
     FILE 'REGISTRY' ENTERED AT 09:29:42 ON 28 JUL 2003
L24
              2 S (NICOTINE OR ETHANOL)/CN
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FILE 'HCAPLUS' ENTERED AT 09:29:49 ON 28 JUL 2003

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1 S L24 AND L11
L25
               E ANDERSON R/AU
L26
            324 S E3, E44-E46
                E ANDERSON RICH/AU
L27
             54 S E4
             29 S E51-E53
L28
                E MCBRINN S/AU
L29
              2 S E5, E6
                E MC BRINN S/AU
                E MCBRIN S/AU
                E ROBERTSON D/AU
L30
            135 S E3, E31
L31
            148 S E51
L32
            166 S E76-E78
                E MARSHALL R/AU
L33
            233 S E3, E8
                E MARCHAL ROB/AU
                E MARSHALL ROB/AU
L34
            163 S E4, E8-E10
              3 S L11 AND L26-L34
L35
L36
              3 S L1, L12, L23, L35
             20 S L11 AND (PD<=20000816 OR PRD<=20000816 OR AD<=20000816)
L37
     FILE 'REGISTRY' ENTERED AT 09:34:57 ON 28 JUL 2003
L38
                STR
              5 S L38
L39
L40
            319 S L38 FUL
                SAV L40 VKIM929/A TEMP
L41
                STR L38
              7 S L41 SAM SUB=L40
L42
                STR L41
L43
              2 S L43 SAM SUB=L40
L44
                STR L43
L45
              5 S L45 SAM SUB=L40
L46
             52 S L43 FUL SUB=L40
L47
             67 S L45 FUL SUB=L40
L48
                SAV TEMP L47 VKIM929A/A
                SAV TEMP L48 VKIM929B/A
L49
            119 S L47, L48
            315 S L40 NOT L8
L50
     FILE 'HCAPLUS' ENTERED AT 09:50:30 ON 28 JUL 2003
L51
             63 S L50
L52
              0 S L51 AND ADDICT?
              2 S L51 AND L13-L21
L53
L54
              2 S L51 AND L24
              4 S L53, L54
L55
              2 S L55 AND (COCAIN? OR CANNABI?)
L56
              0 S L51 AND L26-L34
L57
             17 S L51 AND (ABUS? OR WITHDRAW? OR ?TOLER? OR DEPEND? OR INTOX? O
L58
              5 S L36, L56
L59
     FILE 'REGISTRY' ENTERED AT 09:55:02 ON 28 JUL 2003
     FILE 'HCAPLUS' ENTERED AT 09:55:37 ON 28 JUL 2003
     FILE 'REGISTRY' ENTERED AT 09:56:16 ON 28 JUL 2003
              1 S L2 AND CABER?
L60
              2 S 81409-90-7/CRN
L61
     FILE 'HCAPLUS' ENTERED AT 09:57:56 ON 28 JUL 2003
           207 S L60 OR L61
L62
            245 S CABERGOLIN? OR CABASER# OR DOSTINEX OR GALASTOP# OR SOGILEN#
L63
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L64
           257 S L62, L63
             3 S L64 AND ADDICT?
L65
             7 S L64 AND L13-L21
L66
             6 S L64 AND L24
L67
             12 S L65-L67
L68
                SEL DN AN 4 6 8
              3 S E1-E9 AND L68
L69
                SEL HIT RN
     FILE 'REGISTRY' ENTERED AT 10:01:58 ON 28 JUL 2003
L70
              3 S E10-E12
     FILE 'REGISTRY' ENTERED AT 10:02:03 ON 28 JUL 2003
     FILE 'HCAPLUS' ENTERED AT 10:02:21 ON 28 JUL 2003
     FILE 'BIOSIS' ENTERED AT 10:02:34 ON 28 JUL 2003
L71
           10 S L11
     FILE 'MEDLINE' ENTERED AT 10:03:18 ON 28 JUL 2003
             6 S L11
L72
     FILE 'EMBASE' ENTERED AT 10:03:40 ON 28 JUL 2003
            11 S L11
     FILE 'USPATFULL, USPAT2' ENTERED AT 10:04:12 ON 28 JUL 2003
L74
             47 S L11
L75
             11 S L74 AND ADDICT?
L76
              3 S L74 AND L24
               E TOBACCO/CT
L77
             0 S L74 AND E3
L78
             0 S L74 AND E31
L79
             2 S L74 AND E35, E36
               E DRUG DEPENDENCE/CT
L80
             3 S L74 AND E3,E11
             0 S L74 AND E14
L81
             5 S L74 AND E18
L82
             14 S L75-L82
             26 S L74 AND (PD<=20000816 OR PRD<=20000816)
L85
             8 S L83 AND L84
             18 S L84 NOT L85
L86
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FILE 'USPATFULL, USPAT2' ENTERED AT 10:07:45 ON 28 JUL 2003